

REMARKS

Claims 1-14 are pending in this application. By this Amendment, claim 12 is amended to correct a typographical error.

In view of the foregoing amendments and following remarks, reconsideration of the application is respectfully requested.

I. Rejection Under 35 U.S.C. §102(b)

Claims 1, 4, 7-9, 11 and 12 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent No. 3,716,138 (hereinafter Lumsden). The rejection is respectfully traversed.

A. Claims 1 and 4

Lumsden relates to screens, and particularly to woven wire cloth in a vibratory screen used for classifying the material flowing through or over the screen. Lumsden fails to anticipate claims 1 and 4 for several reasons.

First, the vibrating screen of Lumsden is designed for classifying materials according to particle size, and is not suitable for solid-liquid separation as in the present application. Lumsden recites a screen and not a filter. The vibratory screen of Lumsden does not comprise a filtering portion having a structure and density for accomplishing solid-liquid separation. Thus, Lumsden does not disclose the solid-liquid separation filter cloth of claim 1.

One of ordinary skill in the art understands that a screen and a filter are not the same. A screen indicates use of a large sieve or wire mesh or riddle for sorting substances. A filter, on the other hand, must have a structure for removing the solid particles from a liquid or gas. See the attached definitions of "screen" and "filter". The screen in Lumsden is not suitable for solid-liquid filtration as is the filter of claim 1. Thus, the structure of the screen as taught by Lumsden and the structure of the filter cloth as recited in claim 1 are different.

Second, the Patent Office cites column 4, lines 5-10 and asserts that Lumsden teaches a filter cloth that is further to be arranged against a filtering element as in claim 1 of the present application. However, the cited text only mentions use of the screens in other areas, such as mining, quarry and mechanical industries. Lumsden does not teach a filter that is arranged against any filtering element. Instead, Lumsden teaches a support with decks having a screen cloth 19 tensioned between tension plates 20 along opposite sides of the deck (see column 1, lines 63-65). Figures 2 and 3 clearly show that the screen is tensioned between the tension plates and that nothing is below the screen, and thus does not describe a filter cloth arranged against a filtering element as in claim 1.

Third, the Patent Office asserts that Lumsden discloses thicker yarns placed at predetermined intervals to provide parallel channels to the bottom surface. However, Lumsden discloses a wire screen having a symmetrical structure as shown in Figures 5, 8 and 11. The wires 26, 46 and 66 run on the upper surface side and on the bottom surface side in the screen. Thus, Lumsden does not provide thicker parallel yarns on the underside of the screen as in the present application. Lumsden discloses warp wires 65 that are maintained in spaced parallel relation by weft wires 66 arranged in groups of three at spaced intervals along the length of the warp wires. Thus, Lumsden forms a so-called long slot screen and does not provide parallel channels as in claim 1.

Moreover, between the groups of three wires 66 in Lumsden, there are only wires 69 and no wires in the same direction as the wires 66 (see Figures 10 and 11). The so-called long slot screen structure of Lumsden is very coarse, and thus would not be capable of solid-liquid separation. Even if, for some reason, the screen of Lumsden were used for liquid-solid separation, the solids would easily pass through the screen and no separation would be achieved. The liquid and solids passing through the screen would not flow under the screen,

but instead would easily return to the upper surface side of the screen. Lumsden does not disclose a filter cloth with channels wherein the sorted substance could flow as in claim 1.

Therefore, the structure of the filter cloth as recited in claim 1 and dependent claim 4 is different from the structure of the screen cloth as taught by Lumsden.

B. Claims 7, 8 and 9

As described above, Lumsden does not teach a solid-liquid separation filtering module to be arranged on a filtering element as in the present claims. Instead, Lumsden teaches to tension the screen between the tension plates, wherein an empty space exists below the screen. Lumsden fails to teach any filtering element, and thus no channels are arranged so that a filtered liquid could flow to the openings in a filtering element. Nowhere does Lumsden disclose a filtering module arranged on a filtering element as in claim 7 of the present application.

Therefore, the structure of the filter cloth as recited in claim 7 and dependent claims 8 and 9 is different from the structure of the screen as taught by Lumsden.

C. Claims 11 and 12

For the same reasons stated above, Lumsden fails to disclose the solid-liquid separation filter apparatus of claim 11. Lumsden does not disclose the claimed filtering module designed for solid-liquid separation comprising channels between thicker yarns provided on the bottom surface side of the filtering module. Thus, without channels, Lumsden discloses a different apparatus for a different purpose, and does not disclose the apparatus of claim 11 and claim 12 dependent therefrom.

For the foregoing reasons, Applicant respectfully submits that Lumsden fails to anticipate the subject matter of claims 1, 7 and 11 and claims 4, 8, 9 and 12 dependent therefrom. Reconsideration and withdrawal of this rejection are respectfully requested.

II. Rejections Under 35 U.S.C. §103(a)

A. Rejection Based on Lumsden in view of Verpoest

Claim 2 was rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Lumsden in view of U.S. Patent No. 6,184,161 (hereinafter Verpoest). The rejection is respectfully traversed.

Verpoest discloses a pile thread including a textile thread, where the textile thread is an assembled combination of at least one monofilament and at least one multifilament or one monofilament and an envelope of fibers. The enveloping fibers are melted around the monofilament in order to increase the stiffness (see column 3, lines 57-65). Alternatively glass fibers are tufted on the base yarn and treated with resin in order to improve the stiffness (see column 3, line 66 to column 4, line 14). Thus, Verpoest teaches forming a strongly increased stiffness of the product and does not disclose any yarns that could bend under the forces of the weaving.

The present application discloses that by directing the filter cloth appropriately, desired points of the module can be made stiff by means of the thick yarns in the bottom. For example, when the cloth is bent transversely to the thick yarns the cloth is stiff, but when the cloth is bent in the direction of the thick yarns, it bends readily over a section between the thick yarns (see page 7, paragraph [0020] of the present specification).

On the other hand, there is no suggestion, teaching or even any need in Lumsden to arrange any yarns being able to bend at the crossing points of the yarns in the screen. In fact, Lumsden teaches to use wires made of alloys (see column 3, lines 45-48). The suggested combination is based only on the improper hindsight use of the teachings of the present disclosure. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). The references

must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention. *Hodosh v. Block Drug Co., Inc.*, 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed. Cir. 1986).

Further, it would be against the teachings of Lumsden to modify the structure by adding the pile yarns of Verpoest to the screen of Lumsden because Lumsden teaches to form a screen that is not sensitive to wear (see column 1, lines 23-28). If the alloy wires of Lumsden were substituted by the yarns of Verpoest, the wearing of the screen would increase and the size of the openings would change, thus preventing Lumsden from achieving its desired effect. Thus, there is no motivation to combine Verpoest with Lumsden to achieve the featured elements as recited in claim 2.

Therefore, neither Lumsden nor Verpoest, alone or in combination, teach or suggest the solid-liquid separation filter cloth as recited in claim 2. Reconsideration and withdrawal of this rejection are respectfully requested.

B. Rejection Based on Lumsden in view of Janovac

Claim 3 was rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Lumsden in view of U.S. Patent No. 4,491,517 (hereinafter Janovac). The rejection is respectfully traversed.

Even if Janovac were to have been combined with Lumsden as alleged by the Patent Office, the presently claimed subject matter still would not have been achieved because Janovac does not remedy the deficiencies of Lumsden.

Specifically, Janovac also does not teach or suggest a solid-liquid filtration cloth having thicker yarns at the bottom side thereof as recited in the present claims.

Therefore, neither Lumsden nor Janovac, alone or in combination, teach or suggest the solid-liquid separation filter cloth as recited in claim 3. Reconsideration and withdrawal of this rejection are respectfully requested.

C. Rejection Based on Lumsden in view of Pedersen

Claims 5, 10 and 14 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Lumsden in view of U.S. Patent No. 4,022,596 (hereinafter Pedersen). The rejection is respectfully traversed.

As stated above, Lumsden teaches to use wires made of alloys (see col. 3, lines 45-48). As such, the wires expand in length when subjected to heat. Further, mechanical tensioning plates in Lumsden cause necessary tensioning of the screen. Lumsden teaches the use of metal wires and nowhere does Lumsden teach or suggest the use of heat shrinkable yarns.

Moreover, Pedersen relates to a material for use as a tower packing medium. Pedersen intends to increase the thickness of a honeycomb configuration of the web by heat shrinking of specifically oriented yarns.

Even if Pedersen were to have been combined with Lumsden as alleged by the Patent Office, the presently claimed subject matter still would not have been achieved because Pedersen does not remedy the deficiencies of Lumsden. Specifically, Pedersen also does not teach or suggest thicker yarns in the underside of the filter cloth set against a filtering element as recited in the claims of the present application.

Therefore, neither Lumsden nor Pedersen, alone or in combination, teach or suggest the solid-liquid separation filter cloth as recited in claims 5, 10 and 14. Reconsideration and withdrawal of this rejection are respectfully requested.

D. Rejection Based on Lumsden in view of Oksanen

Claim 6 was rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Lumsden in view of U.S. Patent No. 6,787,492 (hereinafter Oksanen). The rejection is respectfully traversed.

Oksanen relates to a filter cloth intended for a filter which has a variable volume and is based on diaphragm extrusion. Oksanen discloses both outer surfaces of the filter cloth with protective layers. It would be against the teaching of Oksanen to leave the bottom surface side of the cloth without a protective layer, and thus the bottom surface cannot include any channels.

There is no motivation to combine a screening with a diaphragm extrusion, and thus it would not have been obvious to one skilled in the art. There is no motivation to combine Oksanen with Lumsden to achieve the elements as recited in claim 6.

Therefore, neither Lumsden nor Oksanen, alone or in combination, teach or suggest the solid-liquid separation filter cloth as recited in claim 6. Reconsideration and withdrawal of this rejection are respectfully requested.

E. Rejection Based on Derrick in view of Lumsden

Claims 11 and 13 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 5,211,008 (hereinafter Derrick) in view of Lumsden. The rejection is respectfully traversed.

Derrick teaches to arrange a plurality of screens on the top of each other and to secure the screens to each other by epoxy adhesive (see col. 5, lines 32-35). Further, Derrick teaches a multi layer screen, and thus no motivation exists to use a single layer wire screen of Lumsden.

Further, Derrick teaches calendaring (pressing) the screen to form flats into the screen. Even if Derrick would provide free channels in the underside of the screen, which is not apparent, the calendaring would destroy the channels.

Even if Lumsden were to have been combined with Derrick as alleged by the Patent Office, the presently claimed subject matter still would not have been achieved because Lumsden does not remedy the deficiencies of Derrick. Specifically, Lumsden also does not

teach or suggest the solid-liquid separation filtering apparatus of the present application as extensively discussed above.

III. Consideration of Information Disclosure Statement

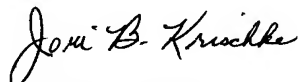
The Patent Office indicated that the information disclosure statement (IDS) submitted on November 14, 2003 is being considered by the Examiner. The Examiner's consideration of the references by return of the initialed PTO-1449 is requested.

IV. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-14 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff
Registration No. 27,075

Jori B. Krischke
Registration No. 57,349

JAO:JBK/rav

Attachment:

Definitions of "screen" and "filter"

Date: August 16, 2006

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

<p>DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461</p>
--

The NEW OXFORD *Dictionary of* ENGLISH

The foremost authority—the most comprehensive coverage of current English

Maximum accessibility—with a revolutionary new entry style

*New Oxford
New English*

The World's Most Trusted Dictionaries

2 (with obj.) cancel or strike out (writing) with a pen or pencil: the name of Dr McNeil was scratched out and that of Dr Dunstaple substituted.

withdraw (a competitor) from a competition: John's Halo was scratched from a winter stakes race at Monmouth Park. [in obj.] (of a competitor) withdraw from a competition: due to a knee injury she was forced to scratch from the race. [intransitive] (of a project) be cancelled or abandoned (an undertaking or project): banks were prepared to scratch stabilisation charges.

3 noun 1 a mark or wound made by scratching: the scratches on her arm were throbbing. [intransitive] scratch marks on the window.

2 (in sing.) intense a slight or insignificant wound or injury: it's nothing—just a scratch. [intransitive] an act or spell of scratching oneself to relieve itching: he gave his scalp a good scratch. [intransitive] a rubbing or grating noise produced by something rubbing against a hard surface: the scratch of a match lighting a cigarette. [intransitive] a rough hiss, caused by the friction of the stylus in the groove, heard when a record is played. [intransitive] a technique, used especially in rap music, of stopping a record by hand and moving it back and forwards to give a rhythmic scratching effect.

3 [mass noun] the starting point in a handicap for a competitor receiving no odds. [ORIGIN: originally denoting a boundary or starting line for sports competitors.]

4 noun a handicap of zero, indicating that a player is good enough to achieve par on a course.

5 [mass noun] informal money: he was working to get some scratch together.

6 adjective (with obj.) assembled or made from whatever is available, and so unlikely to be of the highest quality: City were fielding a scratch squad.

7 (of a sports competitor or event) with no handicap given.

8 PHRASES from scratch from the very beginning, especially without utilizing or relying on any previous work for assistance: he built his own computer company from scratch. scratch a — and find a — used to suggest that an investigation of someone or something soon reveals their true nature: they believe that if you scratch a homophobe, you'll probably find a racist. scratch one's head informal think hard in order to find a solution to something. a feel or express bewilderment.

scratch the surface 1 deal with a matter only in the most superficial way: research has only scratched the surface of the paradox. 2 initiate the briefest investigation to discover something concealed: they have a boring image but scratch the surface and it's fascinating. up to scratch up to the required standard; satisfactory: her German was not up to scratch. you scratch my back and I'll scratch yours informal if you do me a favour, I'll return it.

9 DERIVATIVES scratcher noun.

10 ORIGIN late Middle English: probably a blend of the synonymous dialect words *scrat* and *scath*, both of uncertain origin; compare with Middle Low German *kratsen* and Old High German *kratsen*.

scratchboard 1 noun another term for scratchboard.

2 noun a card with a section or sections coated in an opaque waxy substance which may be scraped away to reveal a symbol indicating whether a prize has been won in a competition.

3 noun 1. Amer. a rough coating of plaster scratched before it is quite dry to ensure the adherence of the next coat.

2 plural noun 1. Brit. crisp pieces of pork fat left after rendering lard, eaten as a snack.

3 noun 1. Amer. a notepad.

4 Computing a small, fast memory for the temporary storage of data.

5 noun a plastic or metal plate attached to the front of a guitar to protect it from being scratched by the pick.

6 noun a video made by mixing together short clips into a single film with a synchronized soundtrack.

7 adjective (scratcher, scratchiest) (especially of a fabric or garment) having a rough, uncomfortable texture and tending to cause itching or discomfort.

8 (of a voice or sound) rough; grating: she dropped her voice to a scratchy whisper. [of a record] making a crackling or rough sound because of scratches on the surface. [of writing or a drawing] done with quick and jagged strokes: a scratchy ink sketch of a man on

horseback. [of a bad-tempered or irritable] she was a little abrupt and scratchy.

9 DERIVATIVES scratchily adverb, scratchiness noun.

10 scrawl 1 verb (with obj.) write (something) in a hurried, careless way: Charlie scrawled his signature. [intransitive] he was scribbling on the back of a used envelope.

2 noun an example of hurried, careless writing: the page was covered in scrawls and doodles. [mass noun] remains and remains of handwritten scrawl.

3 a note or message written in this way: Duncan read the scrawl, then passed it to her.

4 DERIVATIVES scrawly adjective.

5 ORIGIN early 17th cent.: apparently an alteration of the verb *scrawl*, perhaps influenced by obsolete *scrawl* 'sprawl'.

6 scrawny 1 adjective (scrawnier, scrawniest) (of a person or animal) unattractively thin and bony.

2 (of vegetation) meagre or stunted.

3 DERIVATIVES scrawniness noun.

4 ORIGIN mid 19th cent.: variant of dialect *scrawny*; compare with archaic *scramel* 'weak, feeble' (referring to sound).

5 scream 1 verb (no obj.) give a long, loud, piercing cry or cries expressing extreme emotion or pain: they could hear him screaming in pain. [intransitive] a harassed mum with a screaming child.

2 (intransitive) cry something in a high-pitched, frenzied way: [intransitive] I was to the house screaming for help. [with direct speech] 'Get out!' he screamed. [with obj.] he screamed abuse down the phone. a urgently and vociferously call attention to one's views or feelings, especially ones of anger or distress: [with clause] his supporters scream that he is being done an injustice. [intransitive] the creative side of me is screaming out for attention. a loud, shrill, shrill cry.

3 noun a long, loud, piercing cry expressing extreme emotion or pain: they were awakened by screams for help.

4 a high-pitched cry made by an animal: the screams of the seagulls. a loud, piercing sound: the scream of a falling bomb. [intransitive] informal an irresistibly funny person, thing, or situation: the world's a scream.

5 ORIGIN Middle English: origin uncertain; perhaps from Middle Dutch *schreeuwen*.

6 screamer 1 noun 1 a person or thing that makes a screaming sound.

2 informal a thing remarkable for speed or impact: he was a screamer of a 500 cc. [intransitive] a man extremely fast ball or shot: he sent two screeners past the Oxford goalkeeper. a chiefly US a sensational or very large headline: his death caused a front-page screamer. a dated a thing that causes screams of laughter.

3 a large goose-like South American waterbird with a short bill, a sharp bony spur on each wing, and a harsh honking call.

4 a family of birds: two species and three species.

5 screamingly 1 adverb (intransitive) to a very great extent: extremely: a screamingly dull daily routine.

2 noun [mass noun] a mass of small loose stones that form or cover a slope on a mountain.

3 (noun) a slope covered with such stones.

4 ORIGIN early 18th cent.: probably a back-formation from the plural *scree*, from Old Norse *skriða* 'landslip'; related to *skriða* 'glide'.

5 screech 1 verb (no obj.) (of a person or animal) give a loud, harsh, piercing cry: she hit her brother, causing him to screech with pain.

2 make a loud, harsh, squealing sound: [intransitive] screeching. she brought the car to a screeching halt. [intransitive] with a screech of brakes move rapidly with such a sound: the van screeched round a bend at speed.

3 noun a loud, harsh, piercing cry.

4 a loud, harsh, squealing sound: a screech of brakes.

5 DERIVATIVES screecher noun, screechy adjective (screechier, screechiest).

6 ORIGIN mid 16th cent.: alteration of archaic *scritch*, of imitative origin.

7 screech beetle 1 noun an oval convex water beetle with large eyes, which lives in muddy pools. When held it squeaks by rubbing the tip of the abdomen against the wing cases.

2 a Hygroplitis sp. [intransitive] a screeching call: a small American owl related to the scops owl (genus *Otus*, family *Strigidae*; in particular *Otus asio*). a dated another term for BARN OWL.

3 screed 1 noun 1 a long speech or piece of writing, typically one regarded as tedious.

2 [mass noun] a levelled layer of material (e.g. cement) applied to a floor or other surface.

3 (noun) a strip of plaster or other material placed on a surface as a guide to thickness.

4 ORIGIN Middle English: probably a variant of the noun *screen*. The early sense was 'fragment cut from a main piece', then 'torn strip, tatter', whence (via the notion of a long roll or list) sense 1.

5 screeding 1 noun [mass noun] a levelled layer of material (e.g. cement) applied to a floor or other surface.

2 scree 1 verb (no obj.) chiefly Scottish & W. India utter or emit a high-pitched or a discordant cry or sound: screech.

2 ORIGIN late 19th cent.: of imitative origin, or related to the verb *skree*.

3 screen 1 verb (no obj.) chiefly Scottish & W. India utter or emit a high-pitched or a discordant cry or sound: screech.

2 ORIGIN late 19th cent.: of imitative origin, or related to the verb *skree*.

3 screen 1 noun 1 a fixed or movable upright partition used to divide a room, give shelter from draughts, heat, or light, or to provide concealment or privacy.

2 a thing providing concealment or protection: his jeep was discreetly parked behind a screen of trees. [intransitive] the article is using science as a screen for unexamined prejudice. a Military a detachment of troops or ships detailed to cover the movements of the main body.

3 (noun) a partition of carved wood or stone separating the nave of a church from the chancel, choir, or sanctuary. See also *screen*, *screen*.

4 a windshield of a motor vehicle: a branch whipped across the screen and tore off one of the wipers. a a frame with fine wire netting used in a window or doorway to keep out mosquitoes and other flying insects. a a part of an electrical or other instrument which protects it from or prevents it causing electromagnetic interference. a a device (also *screen*) a grid placed between the control grid and the anode of a valve to reduce the capacitance between these electrodes.

5 2 the surface of a cathode ray tube or similar electronic device, especially that of a television, VDU, or monitor, on which images and data are displayed.

6 a blank, typically white or silver surface on which a photographic image is projected: two historical photographs are due to be shown on screens this year. (the screen) film or television: the film industry: she's a star of the screen as well as the stage. a the data or images displayed on a computer screen: pressing the F1 key at any time will display a help screen. a photograph of a flat piece of ground glass on which the image formed by a camera lens is focused.

7 3 Printing a transparent finely ruled plate or film used in half-tone reproduction.

4 (in sing.) a system of checking a person or thing for the presence or absence of something, especially a disease: services offered by the centre include a health screen for people who have just joined the company.

5 a large sieve or riddle, especially one for sorting substances such as grain or coal into different sizes.

6 verb (with obj.) 1 conceal, protect, or shelter (someone or something) with a screen or something forming a screen: her hair swung across to screen her face. [intransitive] a high hedge screened all of the front from passers-by.

2 (intransitive) separate something from something else with or as if with a screen: an area had been screened off as a waiting room. a protect (someone) from something dangerous or unpleasant: in my country a man of my rank would be screened completely from any risk of attack. a prevent from causing or protect from electromagnetic interference: ensure that your microphone leads are properly screened from him pickup.

3 show (a film or video) or broadcast (a television programme): the show is to be screened by the BBC later this year.

4 test (a person or substance) for the presence or absence of a disease: outpatients were screened for cervical cancer.

5 check on or investigate (someone), typically to ascertain whether they are suitable for or can be trusted in a particular situation or job: all prospective presidential candidates would have to be screened by a pre-selection committee. a evaluate or analyze (something) for its suitability for a particular purpose or application: only one per cent of rainforest plants have been screened for medicinal use. a (intransitive) someone (usually) exclude someone or something after such evaluation or investigation: only those refugees who are screened out are sent back to Vietnam.

6 4 pass (a substance such as grain or coal) through a

large sh-

5 Prima

through

to rept

DERIVA

screen

ORIGI

Northe

screen

for pro

screen

casin

printo

wa rest

screen

televis

2 (we

some

suitat

the

pres

scree

3 (see

scree

to a j

scree

actin

scree

print

thron

creat

screen

scree

after

disp

the

scree

disp

opc

scree

whit

verb

acti

scree

or i

or i

scree

det

the

scree

scr

scree

mi

an

toq

of

or

2

2

2

2

2

2

2

b but | d dog | f few | g get | h he | j yes | k cat | l leg | m man | n no | p pen | r red | s sit | t top | v voice | w we | z zoo | she | 3 decision | 0 thin | 0 this | 0 ring | x lock | y chip | d j

DERIVATIVES filmset verb, filmsetter noun.

film star ► noun a well-known actor or actress in films.

film stock ► noun see STOCK (sense 1).

film strip ► noun a series of transparencies in a strip for projection, used especially as a teaching aid.

filmy ► adjective (filmy, filmiest) (especially of fabric) thin and translucent: filmy white voile. covered with or forming a thin layer of something: her eyes were dull and filmy.

DERIVATIVES filmily adverb, filminess noun.

filmy fern ► noun a small fern of damp shady places, with waxy creeping stems and delicate forked fronds which are only one cell thick. They occur chiefly in tropical and subtropical regions.

Family Hymenophyllaceae: Hymenophyllum and other genera.

fillo /fil'lo/ (also phyllo) ► noun (mass noun) a kind of dough that can be stretched into very thin sheets, used in layers to make both sweet and savoury pastries, especially in eastern Mediterranean cookery: [in middle] filo pastry.

ORIGIN 1950s: from modern Greek phyllo 'leaf'.

Filofax /fai'lɒfæks/ ► noun trademark a loose-leaf notebook for recording appointments, addresses, and notes.

ORIGIN 1930s: representing a colloquial pronunciation of file of facts.

filopodium /fai'lɒpə'diəm/ ► noun (pl. filopodia) Biology a long, slender, tapering pseudopodium, as found in some protozoans and in embryonic cells.

DERIVATIVES filopodial adjective.

ORIGIN early 20th cent.: from Latin filum 'thread' + podium.

filosella /fil'ɒsɛlə/ ► noun (mass noun) flows silk, or silk thread resembling this, used in embroidery.

ORIGIN mid 16th cent.: from French, from Italian *filosella*, of uncertain ultimate origin.

filovirus /fai'lɒv'vaɪrəs/ ► noun a filamentous RNA virus of a genus which causes severe haemorrhagic fevers in humans and primates, and which includes the Ebola and Marburg viruses.

fil's /fɪl's/ ► noun (pl. same) a monetary unit of Iraq, Bahrain, Jordan, Kuwait, and Yemen, equal to one hundredth of a riyal in Yemen and one thousandth of a dinar elsewhere.

ORIGIN from a colloquial pronunciation of Arabic *fil*, denoting a small copper coin.

fil's /fɪl's/ French *fil* ► noun used after a surname to distinguish a son from a father of the same name: Alexandre Dumas *fil*. Compare with *père*.

ORIGIN French, 'son'.

filter ► noun a porous device for removing impurities or solid particles from a liquid or gas passed through it: an oil filter.

ORIGIN from *filtrare* v: [see *filter*] a cheap filter (cigarette, a screen, plate, or layer of a substance which absorbs light or other radiation or selectively absorbs some of its components: filters can be used in photography to reduce haze, a device for suppressing electrical or sound waves of frequencies not required, a Brit. an arrangement whereby vehicles may turn left (or right) while other traffic waiting to go straight ahead or turn right (or left) is stopped by a red light: [see *filter*] a filter lane. a traffic light signalling such an arrangement, typically one partly blacked out to form an arrow. a Computing a piece of software that processes text, for example to remove unwanted spaces or to format it for use in another application.

verb [with obj.] (often be filtered) pass (a liquid, gas, light, or sound) through a device to remove unwanted material: the eye filters out ultraviolet radiation | figurative you'll be put through to a secretary whose job it is to filter calls.

verb [with obj.] (often be filtered) move slowly or in small quantities or numbers through something or in a specified direction: people filtered out of the concert during the last act. a [no obj.] with adverbial (of information) gradually become known: the news began to filter in from the hospital. a [no obj.] with adverbial of direction Brit. (of traffic) be allowed to pass to the left or right at a junction while traffic going straight ahead is halted.

ORIGIN late Middle English (denoting a piece of felt) from French *filtrer*, from medieval Latin *filtrum* 'felt used as a filter', of West Germanic origin and related to *rauer*.

filterable (also *filtrable*) ► adjective 1 capable of passing through a filter.

2 capable of being separated out by a filter: filterable solids.

filter bed ► noun a tank or pond containing a layer of sand or gravel, used for filtering large quantities of liquid.

filter cake ► noun a deposit of insoluble material left on a filter.

filter-feeding ► noun (mass noun) Zoology (of an aquatic animal) feeding by filtering out plankton or nutrients suspended in the water.

DERIVATIVES filter-feeder noun.

filter paper ► noun a piece of porous paper for filtering liquids, used especially in chemical processes and coffee-making.

filter press ► noun a device consisting of a series of cloth filters fixed to frames, used for the large-scale filtration of liquid under pressure.

filter tip ► noun a filter attached to a cigarette for removing impurities from the inhaled smoke.

ORIGIN 1950s: from *filter* + *tip* (a cigarette with such a filter).

DERIVATIVES filter-tipped adjective.

filth ► noun (mass noun) disgusting dirt: stagnant pools of filth.

ORIGIN Old English *filth* 'rotting matter, rottenness', also 'corruption, obscenity', of Germanic origin: related to Dutch *vuil*, also to *fool*.

filthy ► adjective (filthier, filthiest) disgustingly dirty: a filthy hospital with no sanitation.

ORIGIN 16th cent.: from *filth* (see *filth*) + *filthy* (see *filthy*).

filth ► noun (mass noun) disgusting dirt: stagnant pools of filth.

ORIGIN Old English *filth* 'rotting matter, rottenness', also 'corruption, obscenity', of Germanic origin: related to Dutch *vuil*, also to *fool*.

filthy ► adjective (filthier, filthiest) disgustingly dirty: a filthy hospital with no sanitation.

ORIGIN 16th cent.: from *filth* (see *filth*) + *filthy* (see *filthy*).

filthy ► adjective (filthier, filthiest) disgustingly dirty: a filthy hospital with no sanitation.

ORIGIN 16th cent.: from *filth* (see *filth*) + *filthy* (see *filthy*).

filthy ► adjective (filthier, filthiest) disgustingly dirty: a filthy hospital with no sanitation.

ORIGIN 16th cent.: from *filth* (see *filth*) + *filthy* (see *filthy*).

filthy ► adjective (filthier, filthiest) disgustingly dirty: a filthy hospital with no sanitation.

ORIGIN 16th cent.: from *filth* (see *filth*) + *filthy* (see *filthy*).

filthy ► adjective (filthier, filthiest) disgustingly dirty: a filthy hospital with no sanitation.

ORIGIN 16th cent.: from *filth* (see *filth*) + *filthy* (see *filthy*).

filthy ► adjective (filthier, filthiest) disgustingly dirty: a filthy hospital with no sanitation.

ORIGIN 16th cent.: from *filth* (see *filth*) + *filthy* (see *filthy*).

filthy ► adjective (filthier, filthiest) disgustingly dirty: a filthy hospital with no sanitation.

ORIGIN 16th cent.: from *filth* (see *filth*) + *filthy* (see *filthy*).

filthy ► adjective (filthier, filthiest) disgustingly dirty: a filthy hospital with no sanitation.

ORIGIN 16th cent.: from *filth* (see *filth*) + *filthy* (see *filthy*).

filthy ► adjective (filthier, filthiest) disgustingly dirty: a filthy hospital with no sanitation.

ORIGIN 16th cent.: from *filth* (see *filth*) + *filthy* (see *filthy*).

filthy ► adjective (filthier, filthiest) disgustingly dirty: a filthy hospital with no sanitation.

ORIGIN 16th cent.: from *filth* (see *filth*) + *filthy* (see *filthy*).

filthy ► adjective (filthier, filthiest) disgustingly dirty: a filthy hospital with no sanitation.

ORIGIN 16th cent.: from *filth* (see *filth*) + *filthy* (see *filthy*).

filthy ► adjective (filthier, filthiest) disgustingly dirty: a filthy hospital with no sanitation.

ORIGIN 16th cent.: from *filth* (see *filth*) + *filthy* (see *filthy*).

filthy ► adjective (filthier, filthiest) disgustingly dirty: a filthy hospital with no sanitation.

ORIGIN 16th cent.: from *filth* (see *filth*) + *filthy* (see *filthy*).

filthy ► adjective (filthier, filthiest) disgustingly dirty: a filthy hospital with no sanitation.

ORIGIN 16th cent.: from *filth* (see *filth*) + *filthy* (see *filthy*).

filthy ► adjective (filthier, filthiest) disgustingly dirty: a filthy hospital with no sanitation.

attended all the football games he could single tickets for: [no obj.] act in a dishonest or devious manner: they wrangled and singled over the fine points.

DERIVATIVES single noun.

ORIGIN 1920s (originally US): from dialect *single* 'cheat'; perhaps from Old French *single* 'derry'.

final ► adjective coming at the end of a series: the final version of the report was presented.

ORIGIN 16th cent.: from *final* (see *final*) + *final* (see *final*).

final ► noun 1 the last game in a sports tournament or other competition, which will decide the winner of the tournament.

ORIGIN 16th cent.: from *final* (see *final*) + *final* (see *final*).

final ► noun 2 a series of examinations at the end of a degree course: she was doing her history finals.

ORIGIN 16th cent.: from *final* (see *final*) + *final* (see *final*).

final ► noun 3 the principal note in a mode.

ORIGIN 16th cent.: from *final* (see *final*) + *final* (see *final*).

final ► noun 4 the final approach of an aircraft to the runway it will be landing on: the plane piloted by Richards was on final.

ORIGIN 16th cent.: from *final* (see *final*) + *final* (see *final*).

final ► noun 5 the last part of the transmission system in a motor vehicle.

ORIGIN 16th cent.: from *final* (see *final*) + *final* (see *final*).

final ► noun 6 the last part of a piece of music, an entertainment, or a public event, especially when particularly dramatic or exciting: the festival ends with a grand finale.

ORIGIN mid 18th cent.: from Italian, from Latin *finalis* (see *final*).

finalism ► noun (mass noun) the doctrine that natural processes, for example evolution, are directed towards some goal.

ORIGIN 19th cent.: from *final* (see *final*) + *finalism* (see *finalism*).

finalism ► noun (mass noun) the doctrine that natural processes, for example evolution, are directed towards some goal.

ORIGIN 19th cent.: from *final* (see *final*) + *finalism* (see *finalism*).

finalism ► noun (mass noun) the doctrine that natural processes, for example evolution, are directed towards some goal.

ORIGIN 19th cent.: from *final* (see *final*) + *finalism* (see *finalism*).

finalism ► noun (mass noun) the doctrine that natural processes, for example evolution, are directed towards some goal.

ORIGIN 19th cent.: from *final* (see *final*) + *finalism* (see *finalism*).

finalism ► noun (mass noun) the doctrine that natural processes, for example evolution, are directed towards some goal.

ORIGIN 19th cent.: from *final* (see *final*) + *finalism* (see *finalism*).

finalism ► noun (mass noun) the doctrine that natural processes, for example evolution, are directed towards some goal.

ORIGIN 19th cent.: from *final* (see *final*) + *finalism* (see *finalism*).

finalism ► noun (mass noun) the doctrine that natural processes, for example evolution, are directed towards some goal.

ORIGIN 19th cent.: from *final* (see *final*) + *finalism* (see *finalism*).

finalism ► noun (mass noun) the doctrine that natural processes, for example evolution, are directed towards some goal.

ORIGIN 19th cent.: from *final* (see *final*) + *finalism* (see *finalism*).

cat | c | bed | c | hair | a | ago | a | her | i | s | i | c | o | s | y | i | t | e | e | e | a | s | e | w | a | r | a | n | u | p | u | t | u | t | e | e | a | t | m | y | a | u | h | o | w | e | r | d | a | y | o | u | n | o | n | e | a | r | o | b | o | y | o | u | p | e | e | a | t | o | u | r | a | s | o | u | r